What is claimed is:

1. A semiconductor manufacturing apparatus, comprising:

a carrier portion for carrying a strip semiconductor wafer in a longitudinal direction; and

a processing portion for selectively processing a partial region of a main surface of said semiconductor wafer along said longitudinal direction.

2. The semiconductor manufacturing apparatus according to claim 1, wherein said processing portion includes:

a mask stage on which a patterned mask is placed; and

a lens for focusing light passing through said mask on said partial region.

3. The semiconductor manufacturing apparatus according to claim 2, wherein said partial region where said lens focuses light extends laterally almost across said main surface of said semiconductor wafer.

4. The semiconductor manufacturing apparatus according to claim 2, wherein said mask placed on said mask stage includes plural kinds of patterns; and

said mask stage is capable of freely selecting either one of said plural kinds of patterns and passing said light through said selected one.

5. The semiconductor manufacturing apparatus according to claim 2, wherein said mask stage is movable back and forth in a carrying direction of said semiconductor wafer; and

said lens focuses light passing in a form of slit through said mask on a slit

region as said partial region.

6. The semiconductor manufacturing apparatus according to claim 1, wherein said processing portion includes a shower head to spay atomized fluid on said region.

7. The semiconductor manufacturing apparatus according to claim 6, wherein said shower head rotates around an axis parallel to a direction of the spraying of said fluid.

8. The semiconductor manufacturing apparatus according to claim 1, wherein said processing portion includes a heater to heat said partial region.

9. The semiconductor manufacturing apparatus according to claim 1, wherein said processing portion includes:

a polishing head for rotating a polishing cloth while pressing it against said partial region; and

a nozzle for supplying chemical fluid to said partial region and its vicinity.

10. The semiconductor manufacturing apparatus according to claim 1, further comprising:

a vacuum vessel defining a vacuum chamber in an inside thereof, wherein said carrier portion is placed in said vacuum chamber, and

said processing portion defines a processing chamber opposed to said partial region in communication with said vacuum chamber.

11. The semiconductor manufacturing apparatus according to claim 10, wherein said processing portion includes means for generating plasma in said processing chamber.

12. The semiconductor manufacturing apparatus according to claim 10, wherein said processing portion includes means for applying gas or particles from said processing chamber to said partial region thereby to deposit a film on said partial region.

13. The semiconductor manufacturing apparatus according to claim 10, wherein said processing portion includes means for applying ions from said processing chamber to said region, thereby to implant said ions into said semiconductor wafer in said partial region.

14. The semiconductor manufacturing apparatus according to claim 1, wherein said processing portion is divided into a plurality of unit processing portions for selectively performing different kinds of processing in different positions on a partial region of said main surface of said semiconductor wafer along said longitudinal direction; and

said carrier portion carries said semiconductor wafer to pass it through said plurality of unit processing portions in sequence.

15. The semiconductor manufacturing apparatus according to claim 14, wherein said processing portion includes as said plurality of unit processing portions:

a first unit processing portion including a first shower head to spray an atomized

etching solution on said partial region;

a second unit processing portion including a second shower head to spray atomized water on said partial region in a different position from said first unit processing portion;

a third unit processing portion including a third shower head to spray an atomized organic solvent on said partial region in a different position from said first and second unit processing portions; and

a fourth unit processing portion including a fan to blow air on said partial region in a different position from said first through third unit processing portions, and

said carrier portion carries said semiconductor wafer to pass it through said first through fourth unit processing portions in this order.

16. A semiconductor manufacturing apparatus comprising:

a supporting member for supporting a strip semiconductor wafer so that one longitudinally extending edge of said semiconductor wafer is opposed to a horizontal rotation axis;

a rotatory driving portion for rotatably driving said supporting member around said rotation axis; and

a coating fluid dropping portion for dropping coating fluid on said semiconductor wafer along said edge.

17. A semiconductor manufacturing apparatus comprising:

a cylinder capable of accommodating a strip semiconductor wafer with a longitudinal direction thereof parallel to the central axis of said cylinder;

a heating portion for heating said semiconductor wafer which is accommodated

in said cylinder; and

a gas circulating portion for circulating gas from one end to the other in a direction of said central axis in said cylinder.

18. The semiconductor manufacturing apparatus according to claim 17, wherein,

said central axis is horizontal,

said semiconductor manufacturing apparatus further comprising:

a supporting member for, while supporting said semiconductor wafer vertically, accommodating said semiconductor wafer in said cylinder.

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19. The semiconductor manufacturing apparatus according to claim 17, further comprising:

a supporting member for, while supporting a plurality of unit strip semiconductor wafers as said semiconductor wafer in parallel with each other at regular intervals, accommodating them with longitudinal directions thereof parallel to said central axis of said cylinder.

20. A semiconductor device manufactured by the semiconductor manufacturing apparatus according to claim 1.

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